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Patent No. 6,890,648

Request for Cert. of Correction dated September 6, 2005

Attorney Docket No. 2204-010851



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,890,648 *B2* Confirmation No. 6743
Inventor : Yano et al.
Issued : May 10, 2005
Title : CR-Free Paint Compositions
And Painted Metal Sheets
Examiner : Sheeba Ahmed
Customer No. : 28289

Certificate
SEP 15 2005
of Correction

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT
FOR PTO MISTAKE (37 C.F.R. 1.322(a))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ATTENTION: Decision and Certificate of Correction Branch
Patent Issue Division

Sir:

In accordance with 35 U.S.C. §254, we attach hereto Form PTO/SB/44 and a copy of proof of PTO errors and request that a Certificate of Correction be issued in the above-identified patent. The following errors appear in the patent as printed:

Column 1, Line 48, "such the demand" should read -- such demand --.
(See Amendment After Allowance of 12/17/2004, page 2, third replacement ¶, line 6.)

Column 4, Line 67, "in prior to application" should read -- prior to application --.
(See Amendment After Allowance of 12/17/2004, page 6, second replacement ¶, lines 6-7.)

Column 14, Line 54, Claim 3, "metal sheet define" should read -- metal sheet defined --.
(See Amendment of 6/28/2004, page 2, Claim 12, line 1. Claim 12 issued as Claim 3.)

Column 14, Line 57, Claim 4, "metal sheet define" should read --metal sheet defined --.
(See Amendment of 06/28/2004, page 2, Claim 13, line 1. Claim 13 issued as Claim 4.)

Respectfully submitted,

THE WEBB LAW FIRM

By



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SEP 15 2005

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 6,890,648 *B2*
APPLICATION NO. : 09/870,037
ISSUE DATE : May 10, 2005
INVENTOR(S) : Yano et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 1, Line 48, "such the demand" should read -- such demand --.

Column 4, Line 67, "in prior to application" should read -- prior to application --.

Column 14, Line 54, Claim 3, "metal sheet define" should read -- metal sheet defined --.

Column 14, Line 57, Claim 4, "metal sheet define" should read --metal sheet defined --.

MAILING ADDRESS OF SENDER: The Webb Law Firm
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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-2450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

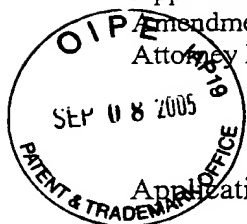
If you need assistance in completing the form, call 1-800-PTO-9199 and select Option 2.

Notice of Allowance dated 09/24/2004

Application No. 09/870,037

Amendment After Allowance dated 12/17/2004

Attorney Docket No. 2204-010851



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 09/870,037

Confirmation No. 6743

Applicant : Hirokazu YANO et al.

Filed : July 27, 2002

Title : CR-FREE PAINT COMPOSITIONS
AND PAINTED METAL SHEETS

Group Art Unit : 1773

Examiner : Sheeba Ahmed

Customer No. : 28289

AMENDMENT AFTER ALLOWANCE UNDER 37 CFR §1.312(a)

MAIL STOP ISSUE FEE

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Abstract begin on page 10 of this paper.

Remarks begin on page 11 of this paper.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 17, 2004.

Linda C. Seger

(Name of Person Mailing Paper)

Signature

12/17/2004

Date

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 1, line 8 with the following rewritten paragraph:

--A pre-coated steel sheet has been broadly used in various fields such as a surfacing member for electric home appliance or an air conditioner and other goods, due to its good productivity compared with a steel sheet, which is formed to an objective shape ~~in~~ prior to application of paint.--

Please replace the paragraph beginning at page 1, line 12 with the following rewritten paragraph:

--The pre-coated steel sheet is manufactured by applying synthetic resin paint to both surfaces or one surface (which will be an external surface of a product) of a steel sheet, and baking the applied paint to form a paint layer. A corrosion inhibitor is commonly added to the resin paint in order to improve corrosion resistance of the paint layer. Adhesiveness of the paint layer is enhanced by chemically converting the surface of a steel sheet to a chromated or phosphated state ~~in~~ prior to paint application. The chemically converted surface layer also affects ~~effects on~~ improvement of corrosion resistance.--

Please replace the paragraph beginning at page 1, line 28 and ending at page 2, line 6 with the following rewritten paragraph:

5 --Chromium compounds or pigments based on chromium compounds, e.g. zinc chromate, strontium chromate, red chromate and red silicochromate, have been used so far as a corrosion inhibitor, due to excellent corrosion-inhibiting faculty. However, there is a stronger demand in these days for provision of a steel sheet coated with a paint layer free from chromium compounds, which exert ~~accounting~~ harmful influences on the environment. In order to cope with such the demand, a corrosion inhibitor prepared from porous silica particles, to which Ca, Zn, Co, Pb, Sr or Ba ion is bonded by ion-exchange, is proposed instead of chromium compounds.--

Notice of Allowance dated 09/24/2004
Application No. 09/870,037
Amendment After Allowance dated 12/17/2004
Attorney Docket No. 2204-010851

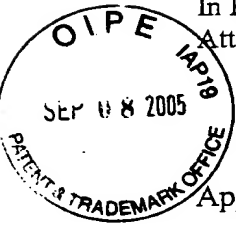
Please replace the paragraph beginning at page 5, line 28 and ending at page 6, line 12 with the following rewritten paragraph:

--The fluorided surface layer is a corrosion-resistant coat composed of fluorine and metals such as Ti decomposed from fluoroacids, which are deposited on a surface of a metal sheet activated by fluoroacids dissolved in water. Metal components originated in the fluoroacid are reacted with hydroxyl groups of resin primer and also reacted with phosphoric acid discharged from the polyphosphate B in the undercoat. The surface layer of the metal sheet, which ^{is} as been activated by etching, is reacted with Ca ion supplied from the corrosion inhibitor A in the undercoat, so bonding reaction of resin paint to the surface is accelerated. Consequently, the undercoat is firmly fixed to the surface of the base metal sheet, and a corrosion-resistant layer is generated at the boundary between the base metal sheet and the undercoat. Fluoric ion is also reacted with Ca ion supplied from the corrosion inhibitor A in the undercoat and converted to a stable compound such as calcium fluoride. The stable compound serves as a barrier and further ~~futher~~ strengthens the fluorided surface layer.--

Please replace the paragraph beginning at page 7, line 4 with the following rewritten paragraph:

5 --Various resin paint such as polyester, urethane, vinyl chloride, acrylic, polyether sulfonate, silicone or fluoric resin may be used for formation of a topcoat without any special restrictions. A kind, molecular weight, glass transition temperature and pigmentary dosage of topcoat resin paint are properly adjusted in response to use of a painted metal sheet as an interior member, cladding, etc.[[.]] PTFE (polytetrafluoroethylene ~~polytetrafuluoroethylene~~) may be added to the topcoat paint. An intercoat may be optionally formed on an undercoat ~~in~~ prior to application of topcoat paint, by 3-coat process. Of course, the painted metal having a single coat can be manufactured by 1-coat process. Paint applied to a base metal sheet is ordinarily baked by hot air in a continuous coating line.--

Application No. 09/870,037
Paper Dated: June 28, 2004
In Reply to USPTO Correspondence of April 8, 2004
Attorney Docket No. 2204-010851



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 09/870,037
Applicants : Hirokazu Yano et al.
Filed : May 30, 2001
Title : CR-FREE PAINT COMPOSITIONS AND
PAINTED METAL SHEETS
Group Art Unit : 1773 Confirmation No. : 6743
Examiner : Sheeba Ahmed Customer No. : 28289

MAIL STOP AMENDMENT
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Sir:

In response to the Office Action of April 8, 2004, Applicants submit the following amendments and remarks:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 3 of this paper.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 28, 2004.

(Name of Person Mailing Paper)

Florence P. Treuth
Signature

06/28/2004
Date

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-7 (cancelled).

(1)

Claim 8 (currently amended): A painted metal sheet having a surface chemically treated with a chemical agent containing at least one fluoroacid coated with a paint layer, which comprises a base resin and dispersed therein particles of a chromium-free corrosion inhibitor prepared from porous silica particles to which Ca ion is bonded by ion-exchange, a polyphosphate and optionally other pigment(s), formed on a surface of a base metal sheet, wherein said composition is positioned on said treated surface of said metal sheet without the interposition of a chromium containing layer.

(2)

Claim 9 (original): The painted metal sheet defined in Claim 8, wherein the base metal sheet is a steel sheet coated with a Zn, Zn-Al or Al plating layer.

Claims 10-11 (cancelled).

(3)

Claim ~~12~~ (currently amended): The painted metal sheet defined in Claim ~~11~~, wherein the fluoroacids are one or more of H_2TiF_6 , H_2ZrF_6 , H_2HfF_6 , H_2SiF_6 , H_2SnF_6 and $HBfF_4$.

(4)

Claim ~~13~~ (currently amended): The painted metal sheet defined in Claim ~~12~~, wherein fluorides are deposited on the surface of the steel sheet at a ratio of $0.5-500mg/m^2$ calculated as deposited fluorine and/or at a ratio of $0.1-500mg/m^2$ calculated as deposited metals in total.